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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,149	09/21/2005	Yusuke Fukumoto	043888-0400	7334

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EXAMINER	
MARTIN, ANGELA J	
ART UNIT	PAPER NUMBER
1795	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,149	FUKUMOTO ET AL.	
	Examiner	Art Unit	
	ANGELA J. MARTIN	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to the Amendment filed on September 15, 2008. The Applicant has amended claim 1. However, a new rejection is presented for the following reasons of record.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al., U.S. Pat. No. 6,423,446 B1, in view of Yasui et al., JP 2001-179151 (machine translation), and in further view of Watanabe et al., JP 08-229481 (machine translation) or Yasuaki et al., JP 11-317218 (abstract), and still in further view of Hwang Seok, KR 2002-0016357 (Applicant's translation).

Miyazaki et al., teach a method for producing lithium ion secondary batteries (col. 1, lines 9-13), comprising the steps of: (A) preparing an electrode sheet with lead-forming parts (col. 2, lines 4-11), (B) forming porous insulating layers comprising an inorganic oxide filler and a binder on a surface of said electrode sheet excluding said lead-forming parts (col. 2, lines 58-65 and col. 4, lines 43-

49; col. 5, lines 43-56), (C) connecting a lead to each of said lead-forming parts (col. 23, lines 62-67), and (D) fabricating batteries by using the electrode sheet to which said leads are connected, wherein said step B comprises: a step of applying a slurry comprising the inorganic oxide filler and the binder to the outer surface of a gravure roll, and transferring the slurry applied to the outer surface of said gravure roll onto a surface of said electrode sheet that is being transported by a plurality of guide rolls excluding said lead-forming parts; and a step of moving at least one selected from said gravure roll and said guide rolls to move said electrode sheet away from said gravure roll at said lead-forming parts (col. 12, lines 13-29).

Yasui et al., teach a method, comprising the steps of: (A) preparing a sheet with lead-forming parts, (B) forming porous insulating layers on a surface of said sheet excluding said lead-forming parts, (C) connecting a lead to each of said lead-forming parts, wherein said step B comprises: the step of applying a slurry to the outer surface of a gravure roll, and transferring the slurry applied to the outer surface of said gravure roll on a surface of said sheet that is being transported by a plurality of guide rolls excluding said lead-forming parts; and the step of moving at least one selected from said gravure roll and said guide rolls to make said sheet away from said gravure roll in said lead-forming part (0036-0040). The method in accordance with claim 1, wherein said step A comprises the step of applying a paste comprising an electrode material mixture to the outer surface of a gravure roll, and transferring the paste applied to the outer surface of said gravure roll on a surface of an electrode core member that is being

transported by a plurality of guide rolls 0022-0024). The method in accordance with claim 1, wherein at least a part of the outer surface of said gravure roll is covered with ceramic (0012). The method in accordance with claim 2, wherein at least a part of the outer surface of said gravure roll is covered with ceramic (0012). The method in accordance with claim 1, wherein in said step B a part of the slurry applied to the outer surface of said gravure roll is scraped off by a blade without being transferred to the surface of said electrode sheet (0012; 0017). The method in accordance with claim 2, wherein in said step A a part of the paste applied to the outer surface of said gravure roll is scraped off by a blade without being transferred to the surface of said electrode core member. (0012; 0017). The method f in accordance with claim 1, wherein the traveling direction of the outer surface of said gravure roll is opposite to the traveling direction of said electrode sheet (0038). The method for wherein the traveling direction of the outer surface of said gravure roll is opposite to the traveling direction of said electrode core member (0038).

Watanabe et al., teach intermittently forming porous insulating layers (abstract).

Yasuaki et al., teach intermittently forming porous insulating layers (abstract).

Hwang Seok teaches the gravure roll is disposed between the plurality of guide rolls (Fig. 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Yasui et al., into the teachings of Miyazaki et al., because while Miyazaki et al., teach a method of making the battery in which gravure coating may be employed, Yasui teaches a gravure coating method “capable of

remarkable and precisely applying a coating agent all over to surely obtain uniform thickness on ever kind of thin base materials." It would be obvious to insert the teachings of Watanabe or Yasuaki into Yasui because the intermittent forming of the layers controls the flow of the coating (Watanabe, claims 18-22). Hwang Seok teaches the design choice of the gravure roll is disposed between the plurality of guide rolls.

Response to Arguments

3. Applicant argues that "Applicants again request that the Examiner specifically point out where Miyazaki et al., disclose intermittently forming porous insulating layers…" However, Miyazaki et al. does not teach "intermittently"; in the 35 USC 103 rejection, other references (Watanabe et al., and Yasuaki et al.) were employed to teach "intermittently". Applicant argues that Yasui et al., do not teach "moving at least one of the gravure and guide rolls away from the sheet at a lead forming part." However, in para. 0036, Yasui et al., teach: "counter direction were made to rotate the gravure roll 13 in drawing 1, While forming the doctor blade 25 in an opposite hand to the gravure roll 13, By rotating the gravure roll 13 clockwise in the figure, and also providing relative velocity difference in the substrate 10 and the gravure roll 13,". Applicant argues that neither of the references teach "to intermittently form porous insulating layers comprising an inorganic oxide filler and a binder on the surface of an electrode sheet by applying a slurry comprising the inorganic oxide filler and the binder to the outer surface of a gravure roll, and transferring the slurry applied to the outer surface of the electrode sheet, and moving at least one selected form the gravure roll and the guide rolls to

move the electrode sheet away from the gravure roll at the lead-forming part, wherein the gravure roll is disposed between the plurality of the guide rolls, as required by claim 1." However, although a single reference does not teach all of the claim limitations in claim 1, the combination of references in the 35 USC 103 rejection teach the claim limitations of claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM
/Angela J. Martin/
Examiner, Art Unit 1795